

【配列表】

SEQUENCE LISTING

<110> RIKEN

AJINOMOTO CO., INK

<120> A method for providing a property of stress-resistance

<130> P01-0027

<140>

<141>

<160> 4

<170> PatentIn Ver. 2.0

<210> 1

<211> 750

<212> PRT

<213> Glycine max

<400> 1

Met Thr Val Thr Pro Lys Ile Ser Val Asn Asp Gly Lys Leu Val Val

1

5

10

15

His Gly Lys Thr Ile Leu Thr Gly Val Pro Asp Asn Val Val Leu Thr

20

25

30

Pro Gly Ser Gly Arg Gly Leu Val Thr Gly Ala Phe Val Gly Ala Thr

35

40

45

Ala Ser His Ser Lys Ser Leu His Val Phe Pro Met Gly Val Leu Glu

50

55

60

Gly Leu Arg Phe Met Cys Cys Phe Arg Phe Lys Leu Trp Trp Met Thr

65

70

75

80

Gln Arg Met Gly Thr Cys Gly Arg Asp Val Pro Leu Glu Thr Gln Phe

85

90

95

Met Leu Ile Glu Ser Lys Glu Ser Glu Thr Asp Gly Glu Asn Ser Pro

100

105

110

Ile Ile Tyr Thr Val Leu Leu Pro Leu Leu Glu Gly Gln Phe Arg Ala

115

120

125

Val Leu Gln Gly Asn Asp Lys Asn Glu Ile Glu Ile Cys Leu Glu Ser

130

135

140

Gly Asp Asn Ala Val Glu Thr Asp Gln Gly Leu His Met Val Tyr Met

145

150

155

160

His Ala Gly Thr Asn Pro Phe Glu Val Ile Asn Gln Ala Val Lys Ala

165

170

175

Val Glu Lys His Met Gln Thr Phe Leu His Arg Glu Lys Lys Arg Leu

180

185

190

Pro Ser Cys Leu Asp Trp Phe Gly Trp Cys Thr Trp Asp Ala Phe Tyr

195

200

205

Thr Asp Val Thr Ala Glu Gly Val Glu Glu Gly Leu Lys Ser Leu Ser

210

215

220

Gln Gly Gly Thr Pro Pro Arg Phe Leu Ile Ile Asp Asp Gly Trp Gln

225

230

235

240

Gln Ile Glu Asn Lys Ala Lys Asp Ala Thr Glu Cys Leu Val Gln Glu

245

250

255

Gly Ala Gln Phe Ala Thr Arg Leu Thr Gly Ile Lys Glu Asn Thr Lys

260

265

270

Phe Gln Lys Lys Leu Gln Asn Asn Glu Gln Met Ser Gly Leu Lys His

275

280

285

Leu Val His Gly Ala Lys Gln His His Asn Val Lys Asn Val Tyr Val

290

295

300

Trp His Ala Leu Ala Gly Tyr Trp Gly Gly Val Lys Pro Ala Ala Thr

305

310

315

320

Gly Met Glu His Tyr Asp Thr Ala Leu Ala Tyr Pro Val Gln Ser Pro

325

330

335

Gly Val Leu Gly Asn Gln Pro Asp Ile Val Met Asp Ser Leu Ala Val
340 345 350

His Gly Leu Gly Leu Val His Pro Lys Lys Val Phe Asn Phe Tyr Asn
355 360 365

Glu Leu His Ala Tyr Leu Ala Ser Cys Gly Val Asp Gly Val Lys Val
370 375 380

Asp Val Gln Asn Ile Ile Glu Thr Leu Gly Ala Gly His Gly Gly Arg
385 390 395 400

Val Ser Leu Thr Arg Ser Tyr His His Ala Leu Glu Ala Ser Ile Ala
405 410 415

Ser Asn Phe Thr Asp Asn Gly Cys Ile Ala Cys Met Cys His Asn Thr
420 425 430

Asp Gly Leu Tyr Ser Ala Lys Gln Thr Ala Ile Val Arg Ala Ser Asp
435 440 445

Asp Phe Tyr Pro Arg Asp Pro Ala Ser His Thr Ile His Ile Ser Ser
450 455 460

Val Ala Tyr Asn Ser Leu Phe Leu Gly Glu Phe Met Gln Pro Asp Trp
465 470 475 480

Asp Met Phe His Ser Leu His Pro Ala Ala Asp Tyr His Ala Ala Ala
485 490 495

Arg Ala Ile Gly Gly Cys Pro Ile Tyr Val Ser Asp Lys Pro Gly Asn

500

505

510

His Asn Phe Asp Leu Leu Lys Lys Leu Val Leu Pro Asp Gly Ser Val

515

520

525

Leu Arg Ala Gln Leu Pro Gly Arg Pro Thr Arg Asp Ser Leu Phe Val

530

535

540

Asp Pro Ala Arg Asp Arg Thr Ser Leu Leu Lys Ile Trp Asn Leu Asn

545

550

555

560

Lys Cys Ser Gly Val Val Gly Val Phe Asn Cys Gln Gly Ala Gly Trp

565

570

575

Cys Lys Ile Glu Lys Lys Thr Arg Ile His Asp Thr Ser Pro Gly Thr

580

585

590

Leu Thr Ala Ser Val Cys Ala Ser Asp Val Asp Leu Ile Thr Gln Val

595

600

605

Ala Gly Ala Glu Trp Leu Gly Asp Thr Ile Val Tyr Ala Tyr Arg Ser

610

615

620

Gly Glu Val Ile Arg Leu Pro Lys Gly Val Ser Ile Pro Val Thr Leu

625

630

635

640

Lys Val Leu Glu Phe Glu Leu Phe His Phe Cys Pro Ile Gln Glu Ile

645

650

655

Ala Pro Ser Ile Ser Phe Ala Ala Ile Gly Leu Leu Asp Met Phe Asn

660

665

670

Thr Gly Gly Ala Val Glu Gln Val Glu Ile His Asn Arg Ala Ala Thr

675

680

685

Lys Thr Ile Ala Leu Ser Val Arg Gly Arg Gly Arg Phe Gly Val Tyr

690

695

700

Ser Ser Gln Arg Pro Leu Lys Cys Val Val Gly Gly Ala Glu Thr Asp

705

710

715

720

Phe Asn Tyr Asp Ser Glu Thr Gly Leu Thr Thr Phe Ser Ile Pro Val

725

730

735

Ser Pro Glu Glu Met Tyr Arg Trp Ser Ile Glu Ile Gln Val

740

745

750

<210> 2

<211> 2780

<212> DNA

<213> Glycine max

<400> 2

tcttccattg gaggaccatt tcctcctgga atagaaatac taccacactt ttcttttttc 60
 acttctctaa gttgctaagt taattgctcc ttcatTTTTT cactcttcgt tctcgcgtac 120

ccgtgtcacg	gtaactcgtg	gtgaagtgtt	cgaaaatgac	tgtcacacct	aagatctcag	180
ttaacgatgg	gaaacttggt	gtccatggta	agaccattct	gactggagtg	ccagacaacg	240
ttgtgctgac	tccaggttct	ggaaggggtc	ttgtgactgg	tgcttttgtt	ggtgccacag	300
cttcacacag	caaaagtctc	catgtgtttc	caatgggtgt	tttagagggg	ctccggttca	360
tgtgtttgtt	ccggttcaag	ttatgggtga	tgactcagag	aatgggaact	tgtgggaggg	420
atgttctct	ggagactcaa	ttcatgctta	ttgagagcaa	agagagtga	actgatgggg	480
agaattctcc	aatcatctac	actgtcttgc	ttcctctcct	cgaagggtcaa	ttccgagctg	540
ttcttcaagg	caatgacaag	aacgagatag	agatttgcct	cgagagtggg	gataatgcag	600
ttgagactga	ccaaggcctt	cacatggttt	acatgcatgc	tgggaccaat	ccctttgaag	660
tcatcaatca	agctgtcaag	gctgtggaaa	aacacatgca	aacttttctt	catcgtgaga	720
agaaaagggt	gccatcttgt	cttgactggg	ttggatgggt	cacatgggat	gctttctata	780
ctgatgtcac	agctgagggt	gttgaggaag	gcctgaaaag	tctatcacag	ggaggtacac	840
ctccacgatt	cctcatcata	gatgatgggt	ggcaacagat	tgaaaataaa	gcaaaggatg	900
ctactgaatg	tttggtacaa	gaaggagcac	agtttgctac	taggttgact	ggtattaaag	960
agaatactaa	atttcaaaag	aaattacaga	acaatgagca	gatgtcaggt	ctgaagcatc	1020
tagtcatatg	agcaaagcag	catcacaatg	tgaaaaatgt	atatgtatgg	catgcactag	1080
ctggttattg	gggtggagtg	aagccagcag	caaccggcat	ggaacattat	gacactgcct	1140
tggcatatcc	agtgcagtca	ccaggcgtgc	taggaaacca	accagacatt	gtcatggaca	1200
gcttggctgt	acatggcctt	ggcctagtgc	acccaaagaa	ggttttcaat	ttctacaacg	1260
agctccatgc	ttacttagct	tcttgtggag	tagatggagt	gaaggttgat	gtgcagaaca	1320
ttattgagac	ccttgggtgcg	ggacatgggt	gccgagtgtc	acttactcgc	agctatcatc	1380
acgcgcttga	ggcttccatt	gctagcaatt	ttactgataa	cggatgcatt	gcgtgtatgt	1440
gtcacaacac	tgatggactt	tatagtgcta	agcagactgc	tattgtgaga	gcttctgatg	1500
atttttaccc	tcgtgatcct	gcttcccata	ccatccatat	ttcttctgtt	gcatacaact	1560
cactattcct	tggagaattc	atgcaacctg	actgggacat	gtttcatagt	ttacaccag	1620
cagcagatta	tcatgctgca	gctcgtgcaa	ttgggtggatg	tcctatttat	gttagtgaca	1680
agccaggcaa	tcacaatttt	gatcttctta	agaagctggg	tctcccggat	ggttcgggtc	1740
tccgtgctca	gttacctggc	aggccaactc	gtgattctct	atttgtggat	ccagccagag	1800
ataggactag	cttgcgtcaa	atatggaacc	tgaacaaatg	ctctggaggt	gttgggtgtat	1860

ttaactgcc aagtgctgga tgggtgcaaga tagagaagaa aaccgcgcatc catgatacat 1920
 ctcttggtac actcaccgcc tctgtctgcg cctctgatgt tgacctcatc acacaagtag 1980
 caggtgctga atggccttga gatacaattg tttatgctta cagatcaggt gaggtgattc 2040
 ggctaccaa aggggtttca attccagtga cactaaaagt tctggagttt gagcttttcc 2100
 acttctgtcc aatccaagaa atagctccaa gtatatcatt tgcagcaata gggctactgg 2160
 atatgttcaa cactggagga gcagtggagc aggttgagat tcataaccga gcagcaacga 2220
 aaacaatagc tcttagtgta aggggaagag gcagatttgg agtttactcc tcccagagac 2280
 cactgaagtg tgtggtagggt ggcgctgaaa ccgacttcaa ctatgactca gagaccgggt 2340
 tgacaacctt ctccattcca gtttctccag aggagatgta cagatggtca atagagatcc 2400
 aagtttgagt cttttttaag acttggtgtt tgatgcattg ttgtatcagg agaagggttt 2460
 tgttgtaatt aagcattgag ggaattgttg gagtcaggca gagagagagg ggggaggttt 2520
 gttgtaagac acctagtatt agtatcatgt agtggagaaa aagggttggt gacctaata 2580
 gctagacaag gcatgttgta gtagtcatgg ggtggggaag tccttttggt gtagcatgta 2640
 atttggttta gacttgtagt atgtcatcaa ttagatggat aaagagagaa tattgttatc 2700
 taccgagga tgtaacaatg tttgtttctc tgaataaaaa gttcacatct gtccttttga 2760
 ataataaaaa aaaaaaaaaa 2780

<210> 3

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Primer

<400> 3

tttccggttc aagttatggt

20

<210> 4

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Primer

<400> 4

caatgcatcc gttatcagta

20

caatgcatcc gttatcagta